

## ROUTE 101/WILLOW ROAD INTERCHANGE IMPROVEMENTS PROJECT REPORT COST ESTIMATE

DIST - CO - RTE 05-SLO-101  
Type of Estimate: Final PR  
Program Code: 20.10.400  
PM: 5.9/6.9  
EA: 05-474500  
PP No. :

### Project Description:

**Limits:** In San Luis Obispo County, At Nipomo  
From 0.9 Miles North of Tefft Street UC  
To 1.8 Miles South of Los Berros Road UC

**Proposed Improvement:** Construct a new compact diamond interchange, at US 101 and Willow Rd Extension.

**(Scope)** Route 101 to remain at grade, while Willow Road will go underneath the freeway and connect to Willow Rd Extension.

### Alternative: **ALTERNATIVE 1 - COMPACT DIAMOND.**

Construct Willow Rd UC with two single-span cast-in-place (CIP)/pre-stressed (PS) concrete box girder structures.

ROADWAY ITEMS	\$19,096,000
STRUCTURE ITEMS	\$3,879,000
SUBTOTAL CONSTRUCTION	\$22,975,000
RIGHT OF WAY	\$940,430
TOTAL ALTERNATIVE COST	\$23,915,430

Reviewed by John Nguyen (408)280-2772

Approved by  (408)280-2772 14-Oct-08  
Project Manager (Signature) (Phone) (Date)

San Luis Obispo County  Dale Ramey 14-Oct-08

Prepared by: RAJAPPAN & MEYER CONSULTING ENGINEERS

## PROJECT REPORT COST ESTIMATE

05-SLO-101

EA: 05-47450O

No. : \_\_\_\_\_

## I. ROADWAY ITEMS

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
<u>Section 1 - Earthwork</u>					
Roadway Excavation	262,000	CY	\$22.00	\$5,764,000	
Imported Borrow					
Clearing & Grubbing	Lump Sum	LS	\$120,000.00	\$120,000	
Develop Water Supply	Lump Sum	LS	\$20,000.00	\$20,000	
Project Schedule	Lump Sum	LS	\$20,000.00	\$20,000	
				<u>Total Earthwork</u>	<u>\$5,924,000.00</u>

## Section 2 - Structural Section \*

PCC Pavement (___ Depth)				
PCC Pavement (___ Depth)				
Asphalt Concrete				
Lean Concrete Base				
Cement-Treated Base				
Aggregate Base				
Treated Permeable Base				
Aggregate Subbase				
Pavement Reinforcing Fabric				
Edge Drains				
Pavement	35,690	SY	\$65.00	\$2,319,850
Minor Concrete (Curb, Gore,...)	285	CY	\$1,000.00	\$285,000
			<b>Total Structural Section</b>	<b>\$2,604,850.00</b>

### Section 3 - Drainage

Large Drainage Facilities					
Storm Drains	Lump Sum	LS	\$1,290,000	\$1,290,000	
Pumping Plants					
Project Drainage (X-drains, overside, etc.)	Lump Sum	LS	\$230,000.00	\$230,000	
Construction Site BMP's	Lump Sum	LS	\$460,000.00	\$460,000	
				Total Drainage	\$1,980,000.00

## PROJECT REPORT COST ESTIMATE

DIST - CO - RTE  
05-SLO-101  
 PM: 5.9/6.9  
 EA: 05-474500  
 PP No. :                     

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Retaining Walls					
Guardrails	1,560	LF	\$30.00	\$46,800	
Barriers	1,325	LF	\$140.00	\$185,500	
Alternative Terminal System	8	EA	\$2,800.00	\$22,400	
Fence/Fence Gate	8,500	LF	\$28.00	\$238,000	
Highway Planting	Lump Sum	LS	\$800,000.00	\$800,000	
3 year Maintenance	Lump Sum	LS	\$230,000.00	\$230,000	
Irrigation Modification					
Relocate Private Irrigation					
Facilities					
Erosion Control	Lump Sum	LS	\$50,000.00	\$50,000	
Water Pollution Control	Lump Sum	LS	\$80,000.00	\$80,000	
Environmental Mitigation	Lump Sum	LS	\$20,000.00	\$20,000	
Resident Engineer Office	Lump Sum	LS	\$48,000.00	\$48,000	
			<u>Total Specialty Items</u>		<u>\$1,720,700.00</u>
<u>Section 5 - Traffic Items</u>					
Lighting	Lump Sum	LS	\$40,000.00	\$40,000	
Traffic Delineation Items	Lump Sum	LS	\$10,000.00	\$10,000	
Traffic Signals	2	EA	\$120,000.00	\$240,000	
Modify Signal					
Overhead Sign Structures	2	EA	\$35,000.00	\$70,000	
Roadside Signs	Lump Sum	LS	\$20,000.00	\$20,000	
Traffic Control Systems	Lump Sum	LS	\$200,000.00	\$200,000	
Transportation Mgmt Plan	Lump Sum	LS	\$50,000.00	\$50,000	
Park and Ride					
			<u>Total Traffic Items</u>		<u>\$630,000.00</u>
			<u>SUBTOTAL SECTIONS 1 - 5:</u>		<u>\$12,859,550.00</u>
			Sheet: 3	of 6	

## PROJECT REPORT COST ESTIMATE

DIST - CO - RTE  
05-SLO-101  
PM: 5.9/6.9  
EA: 05-474500  
PP No. :                     

			<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 6 - Minor Items</u>				
Subtotal Sections 1 - 5	<u>\$12,859,550</u>	X (10%)	<u>\$1,285,955</u>	
			TOTAL MINOR ITEMS:	<u>\$1,285,955</u>
<u>Section 7 - Roadway Mobilization</u>				
Subtotal Sections 1 - 5	<u>\$12,859,550</u>			
Minor Items	<u>\$1,285,955</u>			
Sum	<u>\$14,145,505</u>	X (10%)	<u>\$1,414,551</u>	
			TOTAL ROADWAY MOBILIZATION	<u>\$1,414,550</u>
<u>Section 8 - Roadway Additions</u>				
Supplemental				
Subtotal Sections 1 - 5	<u>\$12,859,550</u>			
Minor Items	<u>\$1,285,955</u>			
Sum	<u>\$14,145,505</u>	X (10%)	<u>\$1,414,551</u>	
Contingencies				
Subtotal Sections 1 - 5	<u>\$12,859,550</u>			
Minor Items	<u>\$1,285,955</u>			
Sum	<u>\$14,145,505</u>	X <u>15%</u> *	<u>\$2,121,826</u>	
			TOTAL ROADWAY ADDITIONS	<u>\$3,536,380</u>
			TOTAL ROADWAY ITEMS	<u>\$19,096,000</u>
			(Total of Sections 1 - 8)	

Estimate  
Prepared By: H. Aburabi (408) 280-2772 16-Oct-08  
(Print Name) (Phone) (Date)

## PROJECT REPORT COST ESTIMATE

DIST - CO - RTE

05-SLO-101

PM: 5.9/6.9

EA: 05-474500

PP No. :

### II. STRUCTURES ITEMS

Bridge Name	<u>Willow Rd UC</u>	<u>Retaining Wall No. 1</u>	<u></u>
Structure Type	<u>Double Box Girder</u>	<u>Soldier Pile</u>	<u></u>
Width (FT) - out to out	<u>83.67</u>	<u></u>	<u></u>
Span Lengths (FT)	<u>142.0</u>	<u></u>	<u></u>
Total Area (SF)	<u>11,881</u>	<u></u>	<u></u>
Footing Type (pile/spread)	<u>Pile</u>	<u>Soldier Pile</u>	<u></u>
Cost per Sq. FT	<u>\$231.03</u>	<u></u>	<u></u>
Including:			
Mobilization: 10%			
Contingency: 25%			
Bridge Removal	<u>\$0.00</u>	<u>\$0.00</u>	<u></u>
Total Cost For Structure	<u>2,744,900</u>	<u>\$1,134,000</u>	<u></u>

SUBTOTAL STRUCTURES ITEMS \$3,878,900

Railroad Related Costs

TOTAL STRUCTURES ITEMS: \$3,879,000

COMMENTS:

Estimate Prepared By: A. Wang

(Print Name)

(408)280-2772

(Phone)

14-Oct-08

(Date)

Sheet: 5 of 6

## PROJECT REPORT COST ESTIMATE

DIST - CO - RTE  
05-SLO-101  
 PM: 5.9/6.9  
 EA: 05-474500  
 PP No. :                     

### III. RIGHT OF WAY

Right-of-Way estimates should consider the probable highest and best use and type and intent of improvements at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter 1, Caltrans Right of Way Procedural Handbook.

	<u>Current Values (Future Use)</u>	<u>Escalation Rate (%/yr)</u>	<u>Escalated Value *</u>
Acquisition, including excess lands	<u>\$940,430</u>	<u>0.00%</u>	<u>\$940,430</u>
Utility Relocation (City Share)	<u>                    </u>	<u>                    </u>	<u>                    </u>
Clearance / Demolition	<u>                    </u>	<u>                    </u>	<u>                    </u>
RAP	<u>                    </u>	<u>                    </u>	<u>                    </u>
Title and Escrow Fees	<u>                    </u>	<u>                    </u>	<u>                    </u>
CONSTRUCTION CONTRACT WORK	<u>                    </u>	<u>                    </u>	<u>                    </u>
TOTAL RIGHT OF WAY ** (CURRENT VALUE)	<u>\$940,430</u>	TOTAL ESCALATED RIGHT OF WAY	<u>\$940,430</u>

\* - Escalated to assumed year 2009: \$940,430

\*\* - Current total value for use on sheet 1 of 6

Estimate prepared by: T. Truong (408)-280-2772 14-Oct-08  
(Print Name) (Phone) (Date)

**WILLOW ROAD EXTENSION PROJECT  
PRELIMINARY PROJECT COST ESTIMATE SUMMARY**

DIST - CO - RTE SLO County  
Type of Estimate: Preliminary  
Program Code: \_\_\_\_\_  
KP: \_\_\_\_\_  
EA: \_\_\_\_\_  
PP No. : \_\_\_\_\_

**Project Description:**

**Limits:** In San Luis Obispo County  
\_\_\_\_\_  
\_\_\_\_\_

**Proposed Improvement:** WILLOW ROAD EXTENSION FROM US 101 TO THOMPSON ROAD  
**(Scope)** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Alternative:** PHASE 3 - For Construction on Willow Rd  
From Nipomo Creek to Thompson Road  
\_\_\_\_\_

ROADWAY ITEMS	\$3,312,000
STRUCTURE ITEMS	\$1,582,000
SUBTOTAL CONSTRUCTION	\$4,894,000
RIGHT OF WAY	\$900,000
TOTAL ALTERNATIVE COST	\$5,794,000

**Reviewed by** Bo Gao 408-280-2772

**Approved by**  (408)280-2772 5-Dec-07  
**Project Manager** (Phone) (Date)

Prepared by; RAJAPPAN & MEYER CONSULTING ENGINEERS

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

SLO County

EA:	0
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PP No. : \_\_\_\_\_

## I. ROADWAY ITEMS

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
<b>Section 1 - Earthwork</b>					
Roadway Excavation	1,090	CY	\$22.00	\$23,980	
Imported Borrow	15,500	CY	\$45.00	\$697,500	
Clearing & Grubbing	Lump Sum	LS	\$70,000.00	\$70,000	
Develop Water Supply	Lump Sum	LS	\$20,000.00	\$20,000	
Project Schedule	Lump Sum	LS	\$30,000.00	\$30,000	
				<b>Total Earthwork</b>	<b>\$841,480.00</b>

## Section 2 - Structural Section \*

PCC Pavement (___ Depth)				
PCC Pavement (___ Depth)				
Asphalt Concrete	3,687	TON	\$110.00	\$405,570
Lean Concrete Base				
Cement-Treated Base				
Aggregate Base	4,035	CY	\$75.00	\$302,625
Treated Permeable Base				
Aggregate Subbase				
Pavement Reinforcing Fabric				
Edge Drains				
Pavement				\$0
Concrete Gutter				\$0
Sidewalk				
			<b>Total Structural Section</b>	<b>\$708,195.00</b>

### Section 3 - Drainage

Large Drainage Facilities				
Storm Drains				
Pumping Plants				
Project Drainage (X-drains, oversize, etc.)	Lump Sum	LS	\$50,000.00	\$50,000
			Total Drainage	\$50,000.00

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

SLO County

KP:                     

EA:                     

PP No. :                     

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
<u>Section 4 - Specialty Items</u>					
Sound Wall		0			
Noise Barriers					
Barriers and Guardrails					
Equipment/Animal Passes					
Highway Planting					
Replacement Planting	Lump Sum	LS	\$50,000.00	\$50,000	
Irrigation Modification					
Relocate Private Irrigation					
Facilities					
Erosion Control	108,068	SF	\$1.50	\$162,102	
Water Pollution Control	Lump Sum	LS	\$50,000.00	\$50,000	
Environmental Mitigation	Lump Sum	LS	\$100,000.00	\$100,000	
Resident Engineer Office	Lump Sum	LS	\$30,000.00	\$30,000	
			<u>Total Specialty Items</u>		<u>\$392,102.00</u>
<u>Section 5 - Traffic Items</u>					
Lighting	Lump Sum	LS		\$0	
Traffic Delineation Items	Lump Sum	LS	\$15,000.00	\$15,000	
Traffic Signals		EA		\$0	
Modify Signal					
Overhead Sign Structures		EA		\$0	
Roadside Signs	Lump Sum	LS	\$20,000.00	\$20,000	
Traffic Control Systems	Lump Sum	LS	\$50,000.00	\$50,000	
Transportation Mgmt Plan	Lump Sum	LS		\$0	
Park and Ride					
			<u>Total Traffic Items</u>		<u>\$85,000.00</u>
			<u>SUBTOTAL SECTIONS 1 - 5:</u>		<u>\$2,076,777.00</u>

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE  
SLO County  
KP: 0  
EA: 0  
PP No. :           

	<u>Unit Cost</u>		<u>Section Cost</u>
<u>Section 6 - Minor Items</u>			
Subtotal Sections 1 - 5	<u>\$2,076,777</u>	X (10%)	<u>\$207,678</u>
			TOTAL MINOR ITEMS: <u>\$207,678</u>

<u>Section 7 - Roadway Mobilization</u>			
Subtotal Sections 1 - 5	<u>\$2,076,777</u>		
Minor Items	<u>\$207,678</u>		
Sum	<u>\$2,284,455</u>	X (10%)	<u>\$228,445</u>
			TOTAL ROADWAY MOBILIZATION <u>\$228,450</u>

<u>Section 8 - Roadway Additions</u>			
<u>Supplemental</u>			
Subtotal Sections 1 - 5	<u>\$2,076,777</u>		
Minor Items	<u>\$207,678</u>		
Sum	<u>\$2,284,455</u>	X (10%)	<u>\$228,445</u>

<u>Contingencies</u>			
Subtotal Sections 1 - 5	<u>\$2,076,777</u>		
Minor Items	<u>\$207,678</u>		
Sum	<u>\$2,284,455</u>	X <u>25%</u> *	<u>\$571,114</u>
			TOTAL ROADWAY ADDITIONS <u>\$799,560</u>

TOTAL ROADWAY ITEMS	<u>\$3,312,000</u>
(Total of Sections 1 - 8)	

Estimate		
Prepared By: <u>Tinh Truong</u>	<u>(408) 280-2772</u>	<u>5-Dec-07</u>
(Print Name)	(Phone)	(Date)

\* Use 25% at the PSR stage or a higher or lower rate if justified.

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE

SLO County

KP: 0

EA: 0

PP No. :                     

### II. STRUCTURES ITEMS

Bridge Name Nipomo Creek                                          

Structure Type Cast-In-Place                                          

Width (FT) - out to out 42.83                                          

Span Lengths (FT) 187.0                                          

Total Area (SF) 8,009                                          

Footing Type (pile/spread) Pile                                          

Cost per SF \$197.49                                          

Including:

Mobilization: 10%

Contingency: 20%

Bridge Removal                                                               

Total Cost For Structure \$1,581,697                                          

SUBTOTAL STRUCTURES ITEMS \$1,581,697

Railroad Related Costs                                                               

TOTAL STRUCTURES ITEMS: \$1,582,000

COMMENTS:

Estimate Prepared By: Tinh Truong (408)280-2772 5-Dec-07  
(Print Name) (Phone) (Date)

Sheet: 5 of 6

## PRELIMINARY PROJECT COST ESTIMATE SUMMARY

DIST - CO - RTE  
SLO County  
KP: 0  
EA: 0  
PP No. :

### III. RIGHT OF WAY

Right-of-Way estimates should consider the probable highest and best use and type and intent of improvements at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter 1, Caltrans Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rate (%/yr)	Escalated Value *
Acquisition, including excess lands and damages to remainders (\$108/sm)	\$900,000		
Utility Relocation (City Share)			
Clearance / Demolition			
RAP			
Title and Escrow Fees			
CONSTRUCTION CONTRACT WORK			
TOTAL RIGHT OF WAY ** (CURRENT VALUE)	\$900,000	TOTAL ESCALATED RIGHT OF WAY	

\* - Escalated to assumed year 2003:

\*\* - Current total value for use on sheet 1 of 6

Estimate prepared by: Tinh Truong (408)-280-2772 5-Dec-07  
(Print Name) (Phone) (Date)